

21

work 106 and that the alternate suggested edit has a respective confidence score above a confidence score threshold.

At 516, the device 108 may, under control of the processor 202 and/or the network interface 206, transfer at least a portion of the correction data 122 stored in the local correction data store 220 to the service provider 110 by way of the network 112. For example, the device 108 may transfer any of the new manual corrections recently added to the local correction data store 220, and any corresponding outputs of the recognition module 210 stored in association therewith, to the service provider 110 at 516.

At 518, the service provider 110 may begin to determine whether the set of global correction data stored in the global correction data store 312 should be modified based on the correction data 122 received at 516. In one example, at 518 the learning module 308 may determine whether to modify one or more weights associated with the user 104 from which the manual corrections were received at 510. Such a determination may be made based on, among other things, the manual correction history of the user 104, and the confidence score associated with respective automatically-made edits generated by the recognition module 210 and/or the processing module 212. In one example, at 518 the learning module 308 may determine that the user 104 provided a first manual correction to a first automatically-made edit having a confidence score below a confidence score threshold (and thus, likely inaccurate), and that the user 104 also accepted a second automatically-made edit having a confidence score above the confidence score threshold (and thus, likely accurate) without providing a corresponding manual correction thereto. In response to such a determination (518-yes), the learning module 308 may modify one or more algorithms utilized to determine whether or not to modify the set of global correction data stored in the global correction data set store 312. In particular, in response to such a determination the learning module 308 may, at 520, increase a weight associated with the particular user 104, and/or with manual corrections provided by the user 104, relative to additional users 104 having a history of providing relatively less accurate manual corrections.

Alternatively, if at 518 the learning module 308 determines that the user 104 provided a first manual correction to a first automatically-made edit having a confidence score above a confidence score threshold (and thus, likely accurate), and that the user 104 also accepted a second automatically-made edit having a confidence score below the confidence score threshold (and thus, likely inaccurate) without providing a corresponding manual correction thereto, the learning module 308 may, at 520, modify one or more of the algorithms described above by decreasing a weight associated with the particular user 104, and/or with the manual corrections provided by that user 104, relative to additional users 104 having a history of providing relatively more accurate manual corrections. Such determinations made at 518 may assist in avoiding incorporating erroneous manual corrections into the set of global correction data stored in the global correction data store 312, and such determinations may be made based on the confidence scores described above automatically generated by the recognition module 210.

On the other hand, if neither of the above conditions exist (518-no) control may proceed to 522 where the redundancy module 310 may determine whether the manual correction included in the correction data 122 is redundant to manual corrections already stored in the global correction data store 312. For example, the redundancy module 310 may review the correction data 122 received from the one or more devices 108 to determine whether a manual correction and/or a char-

22

acter signature included therein already exists in the global correction data store 312. If so (522-yes) such redundant correction data 122 may not be added to the set of global correction data at 526. However, in one example, a confidence score associated with the redundant correction data 122 may be increased by the redundancy module 310 in order to indicate an increased likelihood that the corresponding automatically-made edit was accurate. On the other hand, if the redundancy module 310 determines that a manual correction and/or character signature associated with the correction data 122 does not already exist in the global set of correction data (522-no), the redundancy module 310 may modify the set of global correction data at 524 by, for example, adding the correction data 122 to the global set of correction data. In one example, the redundancy check at 522 may further increase the efficiency of the various architectures described herein by substantially eliminating duplicate information in the set of global correction data.

Although embodiments have been described in language specific to structural features and/or methodological acts, it is to be understood that the disclosure is not necessarily limited to the specific features or acts described. Rather, the specific features and acts are disclosed herein as illustrative forms of implementing the embodiments.

What is claimed is:

1. A method comprising:

generating, by one or more computing devices, a first character recognition-based work including a first plurality of automatically-made edits made by the one or more computing devices, each edit of the first plurality of edits being characterized by a Unicode and a confidence score;

comparing the respective confidence scores of the first plurality of automatically-made edits to a confidence score threshold;

identifying at least one edit of the first plurality of automatically-made edits as having a respective confidence score below the confidence score threshold;

characterizing the at least one edit of the first plurality of automatically-made edits as being of questionable accuracy based at least in part on the respective confidence score of the at least one edit being below the confidence score threshold;

determining a character signature of the at least one edit, wherein the character signature comprises one or more of a shape identifier, a boundary identifier, or a location identifier, and wherein the character signature is indicative of a character of the at least one edit;

receiving, from a first user of the one or more computing devices, a correction made to the at least one edit, the correction comprising one or more revised characters;

storing, at the one or more computing devices, the one or more revised characters in association with the character signature and the Unicode of the at least one edit; and

generating, using the one or more revised characters, a second plurality of automatically-made edits in a second character recognition-based work, wherein the second character recognition-based work is different than the first character recognition-based work.

2. The method of claim 1, wherein storing, at the one or more computing devices, the one or more revised characters in association with the character signature and the Unicode of the at least one edit includes:

comparing, on a pixel-by-pixel basis, the character signature of the at least one edit with respective character signatures of one or more additional stored manual corrections;